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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,001	12/07/2001	Azuma Miyazawa	OOCL-76 (US-P1549)	7220
26479	7590	03/29/2004	EXAMINER	
STRAUB & POKOTYLO 620 TINTON AVENUE BLDG. B, 2ND FLOOR TINTON FALLS, NJ 07724			FEGGINS, KRISTAL J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/020,001	Applicant(s) MIYAZAWA ET AL.	
	Examiner K. Feggins	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/07/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 9-10 are objected to because of the following informalities: claims 9-10 recites the limitation "said battery" in line 6. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Allowable Subject Matter

2. Claims 1-8 are allowed.

Claims 9-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 1, 4, 8 is the inclusion of the limitations of a heat sublimatic printer that includes a thermal head provided with a plurality of heating elements whose resistances range from 2650 ohm to 2990 ohm, and used to print an image on paper according to image data; and a control circuit for applying a supply voltage developed from said battery to said thermal head without boosting it, and controlling the timing of electrically conduction said thermal head. It is these limitations found in each of the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 2 & 5 is the inclusion of the limitations of a heat sublimatic printer that includes a thermal head provided with a plurality of heating elements whose resistances range from 2800 ohm to 3160 ohm, and

Art Unit: 2861

used to print an image on paper according to image data; and a control circuit for applying a supply voltage developed from said battery to said thermal head without boosting it, and controlling the timing of electrically conduction said thermal head. It is these limitations found in each of the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 3 & 6 is the inclusion of the limitations of a heat sublimatic printer that includes a thermal head provided with a plurality of heating elements whose resistances range from 2950 ohm to 3340 ohm, and used to print an image on paper according to image data; and a control circuit for applying a supply voltage developed from said battery to said thermal head without boosting it, and controlling the timing of electrically conduction said thermal head. It is these limitations found in each of the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 9 is the inclusion of the limitations of a heat sublimatic printer that includes a thermal head provided with a plurality of heating elements whose resistances range from 2800 ohm to 3160 ohm, and used to print an image on paper according to image data; and a control circuit for applying a supply voltage developed from a battery to said thermal head without boosting it, and controlling the timing of electrically conduction said thermal head. It is these limitations found in each of the claims, as it is claimed in the

Art Unit: 2861

combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 10 is the inclusion of the limitations of a heat sublimatic printer that includes a thermal head provided with a plurality of heating elements whose resistances range from 2950 ohm to 3340 ohm, and used to print an image on paper according to image data; and a control circuit for applying a supply voltage developed from a battery to said thermal head without boosting it, and controlling the timing of electrically conduction said thermal head. It is these limitations found in each of the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takahashi (US6624834 B2) disclose a printer device with a relay supplying power supply voltage from a battery to a power supply controller. Ishikawa (US 6618068) discloses a charge circuit, battery contacts and a control circuit for applying voltage to a thermal head are mounted and concentrated on the sole powder printed-circuit board. Mizoguchi et al. (US 6,629,182 B1) disclose an electronic device and docking system and power control system. Wyss et al. disclose a battery charger an a process for automatic adjusting operation of a battery charger.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2861

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication With The USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



K. Feggins
March 19, 2003